



Weigh-in-Motion

Introducing Weigh-in-Motion (WiM) - the dynamic weighing system that accurately measures the weight of passing vehicles, aiding in the maintenance of infrastructure and improving traffic flow. With a flexible setup and a >98% accuracy rate, WiM provides precise predictions of road degradation and enables active enforcement against overloaded vehicles. The system's solid back-office design ensures quick and effective enforcement through a combination of weighing sensors, inductive loops, and ANPR cameras.



Features

Weighing Sensors

Highly accurate, embedded in the asphalt, it measures vehicle weight, axle weight, and distance between axles.

Inductive Loops

Detect the presence of passing vehicles, triggering the weighing sensors to measure the vehicle weight.

ANPR Cameras

Read license plates of passing vehicles and trigger a set of cameras to create registration records for each vehicle.

Software Platform

Integrates data from sensors, and ANPR cameras, for infrastructure maintenance and enforcement purposes.

Implementation

The project involved the installation of sensors on four lanes of a bridge in the Amsterdam harbor area, which measured vehicle weights, axle weights, and distances for all passing traffic. Over the course of the two-year pilot, 9.3 million vehicles were scanned and the system was regularly calibrated to ensure accurate data collection.



Advantages

Manual weight checking of heavy duty vehicles is no longer necessary. Weigh-in-motion is a dynamic weighing system: the weight of the trucks is checked as they pass a road or bridge, without slowing them down.

FLEXIBLE SETUP

Dynamic weighing that does not require trucks to be taken off the road and uses ANPR to verify license plates for efficient enforcement.



IMPROVED TRAFFIC FLOW

Eliminates manual weight checks and can be easily applied to existing infrastructure with high accuracy sensors that cost less to install than OBW requirements.



MAINTENANCE PLANNING

Reduces operational costs by providing accurate predictions of road degradation and enabling calibration verification of OBW systems.



SOLID BACK-OFFICE

Effective design ensures quick and accurate enforcement. All information is combined into registration records.



Benefits

Improved accuracy

- Accurate weight measurements reduce the risk of overloading
- Prevent structural damage to roads and bridges

Reduced downtime

- Real-time operation without the need for trucks to stop
- Improve the efficiency of a transport network

Predictive maintenance

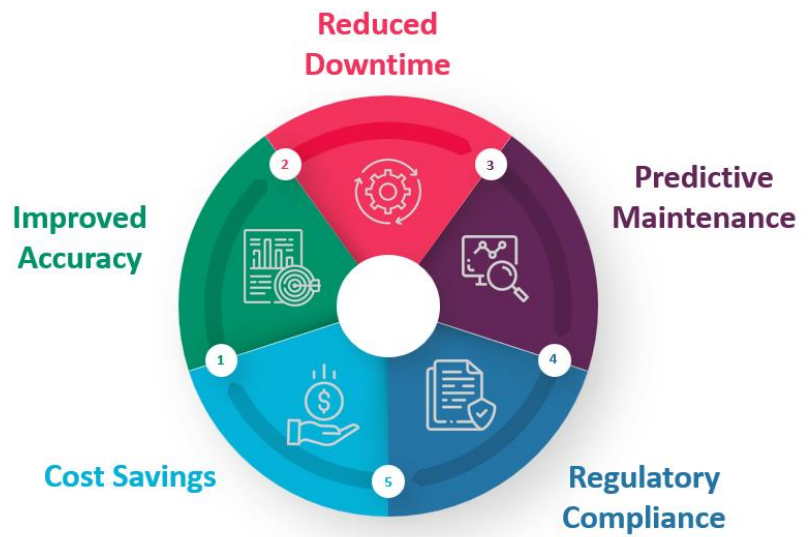
- Accurately predicting road degradation allows for planned maintenance activities
- Improved road safety and reduced disruption

Regulatory compliance

- Effectively enforce regulatory compliance
- Prevent overloaded trucks

Cost savings

- Eliminating the need for manual weighing
- Significant road maintenance cost savings



Contact us today and see how WIM can benefit your operations. Don't wait any longer to streamline the process.

About ARS T&TT

ARS Traffic & Transport Technology (ARS T&TT), headquartered in the Netherlands has been providing intelligent traffic and transport technology solutions to businesses and government bodies for over twenty years. We are an active player in our home market of the Netherlands, with a particular emphasis on meeting the growing international demand for innovative transportation solutions. Our mission as an independent 'Intelligent Transport System' (ITS) solutions provider is to rapidly expand our leading position in the fast-growing smart traffic and transportation markets. We believe continuous improvement and innovation enable us to achieve this mission.

For more information, contact us: info@ars.nl



100+
Projects



8
Countries



24
Years of experience



350+
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